

## CLAIMS

1. A method for the *in vitro* culture of lymphocytes comprising incubating lymphocytes and cells in which a particular gene has been expressed in a particular cancer cell or in which such a particular cancer has already been expressed, to amplify mainly NK cells or non-MHC-bound or MHC-bound killer T cells and further to amplify killer T cells specific to a cancer antigen.

2. The method for the *in vitro* culture of the lymphocytes as claimed in claim 1, wherein said cancer cells comprise cancer cells which are deficient or lowered in expression of a class 1 antigen.

3. The method for the *in vitro* culture of the lymphocytes as claimed in claim 1 or 2, wherein said particular gene is B7 gene or a combination of B7 gene with cancer antigen gene or a gene for a cell-binding factor.

4. The method for the *in vitro* culture of the lymphocytes as claimed in any one of claims 1 to 3, wherein said lymphocytes are those collected immediately after separation from peripheral blood or those activated by an immunomodulator that can become likely to damage a cancer cell.

5. A composition for use in immune therapy, comprising lymphocytes obtained by amplifying mainly NK cells or non-MHC-bound or MHC-bound killer T cells by incubating lymphocytes and cells with a particular gene expressed in a particular cancer cell or cells in which said particular gene has already been expressed, and amplifying killer T cells specific to a cancer antigen by means of the method for the *in vitro* culture of the lymphocytes as claimed in any one of claims 1 to 4.

6. The composition for use in immune therapy as claimed in claim 5, wherein

said cancer cells comprise cancer cells which are deficient or lower in expression of a class 1 antigen.

7. The composition for use in immune therapy as claimed in claim 5 or 6, wherein said particular gene is B7 gene or a combination of B7 gene with cancer antigen gene or a gene for a cell-binding factor.

8. The composition for use in immune therapy as claimed in any one of claims 5 to 7, wherein said lymphocytes are those collected immediately after separation from peripheral blood or those activated by an immunomodulator that can become likely to damage a cancer cell.